

# GAS SAMPLING BAGS

Non-contaminating, chemically inert, EPA recommended

These gas sampling bags offer a convenient, reliable, economical way of collecting airborne chemical hazards. They are chemically inert, leak tested, mechanically strong, reusable, and non-contaminating. Gas Sampling Bags are available in *ALTEF*, Tedlar®, Charcoal Tedlar®, FEP, PFA and other materials, with a variety of standard and custom fittings as well as optional metal eyelets for easy holding and storage.

### Common applications

- Assessing exposure from spills and leaks
- Biogas and landfill sampling
- Calibrating Gas Standards
- Gas Blending
- Grab Sampling
- Magnetic Imaging
- Groundwater Testing
- Measuring Peak Concentrations
- Indoor Air Sampling
- Vent Sampling
- Soil Gas Sampling
- Hazardous Waste Site Sampling

### Tedlar® Bags

Tedlar® film has very low gas permeation levels and high tensile strength. Bags resist puncture in the field. 2 mil Tedlar® film is an economical alternative to FEP bags. Tedlar® is much less permeable than FEP and is unaffected by the chemical components of gases generally sampled, like carbon monoxide, sulfur dioxide, hydrogen sulfide, radon and mercaptans. Continuous use temperature from -98° to 400°F (temperature limit depends on fittings used). Required for many EPA testing methods.

### ALTEF Bags

*ALTEF* is a proprietary fluoropolymer film developed specially for the air sampling market. *ALTEF* has many of the desired characteristics of Tedlar® at a significantly lower cost. *ALTEF is not recommended for ketones or esters in high concentrations (>30%) and is not suitable for storing H<sub>2</sub>S. Our Multi-Layer Foil bags are the best choice for collecting and storing H<sub>2</sub>S.*

### Multi-Layer Foil Bags

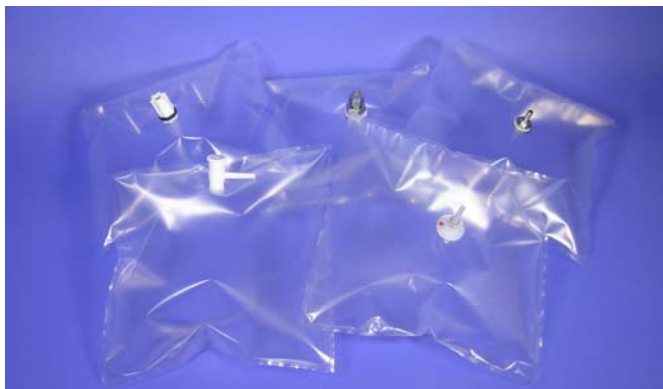
Multi-Layer Foil bags are ideal for sampling and storing H<sub>2</sub>S, and for low molecular weight compounds such as Methane, CO/CO<sub>2</sub>, Hydrogen, and inert gases which are not stable in Tedlar®, *ALTEF*, or FEP. Water and vapor proof, these flexible bags protect light sensitive compounds. Bags are available in standard capacities of 1, 2, 3, 5, 10, 12, 25, and 40 liter capacities, with several fitting and valve options. They provide up to 5 day sample stability with minimal adsorption. Custom sizes available.

### FEP Bags

FEP is one of the most chemically inert materials for making gas sampling bags. It works well in extreme temperatures ranging from -400° to 400°F; allowing it to be used in most stack sampling conditions. 5 mil FEP film is completely resistant to the most severe corrosives. Relatively low permeability results in minimal sample loss. FEP bags can be specified for applications involving rough handling.

### Choice of Fittings and Valves

Standard valves and fittings offered are: Polypropylene Screw Cap Combo Valve, Polypropylene Locking Combo Valve®, Nickel Plated HR® Barbed Valve, Jaco® Plastic Fitting for Tubing or Septum, Stainless Steel Combo Valve, TCLP Stainless Steel Septum fitting, Stainless Steel Swagelok® type fitting and PFA fitting.



STANDARD SIZES			
SIZE/ INCHES	CAPACITY/ LITERS	SIZE/ INCHES	CAPACITY/ LITERS
6 x 6	0.6	12 x 21	12.0
7 x 7	1.0	18 x 18	16.0
6 x 10	1.2	18 x 24	25.0
6 x 12	1.5	24 x 24	40.0
9 x 9	2.0	24 x 30	56.0
10 x 10	3.0	24 x 36	73.0
12 x 12	5.0	30 x 30	80.0
12 x 19	10.0	30 x 36	100.0

CUSTOM SIZES AVAILABLE

Tedlar® is a registered trademark of E.I DuPont  
 Locking Combo® is a registered trademark of Jensen Inert Products Inc.  
 Swagelok® is a registered trademark of Swagelok Inc.  
 Jaco® is a registered trademark of Jaco Manufacturing Inc.  
 HR® is a registered trademark of Halkey Roberts Inc.

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### Re-using bags

The EPA does not recommend reusing sample bags for ambient air sampling, due to the possibility of adsorption of previously sampled chemicals onto the inside bag surface. In some cases, bags can be reused, with the following guidelines.

- Immediately after use, clean bags by flushing and heating, then store with all air evacuated from the bag.
- Long-term storage of air-contaminant mixtures in bags can cause subsequent samples to be contaminated by off-gassing of previous samples adsorbed into the film.
- Tedlar® bags can be used for higher MW alcohols without contaminating subsequent samples if cleaned and flushed properly.
- Properly cleaned bags can be reused for sampling ethers without interfering with subsequent analysis.
- Tedlar® bags used for sampling styrene or ethyl benzene cannot be reused. Cleaning and flushing will not completely remove these chemicals.

### Hints

- Before use, thoroughly flush bags with purified air or nitrogen.
- During sampling, Fluoropolymer tubing and Fluoropolymer faced septums must be used in order to prevent sample loss.
- Bags should not be filled to more than 80% of their maximum volume.
- Charcoal (Black) Tedlar® bags should be used when sampling any light sensitive elements.
- Do not store compounds in Tedlar® bags long term due to the possibility that chemicals may adsorb onto the bag surface.
- Bags should not be used to collect reactive or unstable compounds.
- When shipping bags, do not air-ship unless the cabin is pressurized.

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 Locking Combo® is a registered trademark of Jensen Inert Products Inc.  
 Swagelok® is a registered trademark of Swagelok Inc.  
 Jaco® is a registered trademark of Jaco Manufacturing Inc.  
 HR® is a registered trademark of Halkey Roberts Inc.

### Available Valves and Fittings



Polypropylene Screw Cap Combo Valve with Replaceable Septum



Polypropylene Locking Combo Valve with Septum



Stainless Steel TCLP Fitting with Replaceable Septum



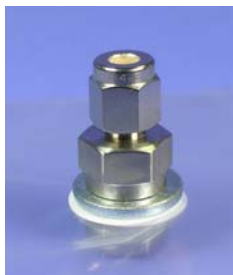
Stainless Steel Combo Valve with Replaceable Septum



Plastic Jaco® Fitting for Tubing or Septum



Nickel Plated HR® Barbed On/Off Valve



Swagelok® type Stainless Steel Fitting for Tubing or Septum



PFA Fitting for Tubing or Septum

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 Effective 12/2010